#### Environmental Screening Report for the Interstate 680/Interstate 880 Cross Connector

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# Contents

Introduction       1         Auto Mall Parkway       2         Land Uses       2         Biology       2         Cultural       3         Physical and Economic Constraints       3         Fremont Boulevard/Grimmer Boulevard       4         Land Uses       4         Biology       4         Cultural       4         Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biological Resources       9         Utility Relocations	Pa	age
Auto Mall Parkway       2         Land Uses       2         Biology       2         Cultural       3         Physical and Economic Constraints       3         Fremont Boulevard/Grimmer Boulevard       4         Land Uses       4         Biology       4         Cultural       4         Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints <t< th=""><th>Introduction</th><th>1</th></t<>	Introduction	1
Land Uses       2         Biology       2         Cultural       3         Physical and Economic Constraints       3         Fremont Boulevard/Grimmer Boulevard       4         Land Uses       4         Biology       4         Cultural       4         Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Biological Resources	Auto Mall Parkway	2
Biology       2         Cultural       3         Physical and Economic Constraints       3         Fremont Boulevard/Grimmer Boulevard       4         Land Uses       4         Biology       4         Cultural       4         Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       <	Land Uses	2
Cultural         3           Physical and Economic Constraints         3           Fremont Boulevard/Grimmer Boulevard         4           Land Uses         4           Biology         4           Cultural         4           Physical and Economic Constraints         4           Mission Boulevard         5           Land Uses         5           Biology         5           Cultural         5           Physical and Economic Constraints         5           Scott Creek Road/Dixon Landing Road         6           Land Uses         6           Biology         6           Cultural         7           Physical and Economic Constraints         7           Calaveras Boulevard/Route 237         7           Land Uses         7           Biology         8           Cultural         8           Physical and Economic Constraints         8           Montague Expressway         9           Land Use         9           Biology         9           Cultural         9           Physical and Economic Constraints         9           Summary         9	Biology	2
Physical and Economic Constraints.         3           Fremont Boulevard/Grimmer Boulevard         4           Land Uses         4           Biology         4           Cultural         4           Physical and Economic Constraints         4           Mission Boulevard         5           Land Uses         5           Biology         5           Cultural         5           Physical and Economic Constraints         5           Scott Creek Road/Dixon Landing Road         6           Land Uses         6           Biology         6           Cultural         7           Physical and Economic Constraints         7           Calaveras Boulevard/Route 237         7           Land Uses         7           Biology         8           Cultural         8           Physical and Economic Constraints         8           Montague Expressway         9           Land Use         9           Biology         9           Cultural         9           Physical and Economic Constraints         9           Summary         9           Biological Resources         10     <	Cultural	3
Fremont Boulevard/Grimmer Boulevard       4         Land Uses       4         Biology       4         Cultural       4         Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10	Physical and Economic Constraints	3
Land Uses       4         Biology       4         Cultural       4         Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Biology       4         Cultural       4         Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Cultural       4         Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Physical and Economic Constraints       4         Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Mission Boulevard       5         Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10	Physical and Economic Constraints	4
Land Uses       5         Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Biology       5         Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Cultural       5         Physical and Economic Constraints       5         Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Physical and Economic Constraints. 5 Scott Creek Road/Dixon Landing Road 6 Land Uses 6 Biology 6 Cultural 7 Physical and Economic Constraints 7 Calaveras Boulevard/Route 237 7 Land Uses 7 Biology 8 Cultural 8 Physical and Economic Constraints 8 Physical and Economic Constraints 8 Montague Expressway 9 Land Use 9 Biology 9 Cultural 9 Physical and Economic Constraints 9 Summary 9 Biological Resources 10		
Scott Creek Road/Dixon Landing Road       6         Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Land Uses       6         Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Biology       6         Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10	Land Uses	6
Cultural       7         Physical and Economic Constraints       7         Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Physical and Economic Constraints.       7         Calaveras Boulevard/Route 237.       7         Land Uses.       7         Biology.       8         Cultural.       8         Physical and Economic Constraints.       8         Montague Expressway.       9         Land Use.       9         Biology.       9         Cultural.       9         Physical and Economic Constraints.       9         Summary.       9         Biological Resources.       10		
Calaveras Boulevard/Route 237       7         Land Uses       7         Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Land Uses       .7         Biology       .8         Cultural       .8         Physical and Economic Constraints       .8         Montague Expressway       .9         Land Use       .9         Biology       .9         Cultural       .9         Physical and Economic Constraints       .9         Summary       .9         Biological Resources       .10		
Biology       8         Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Cultural       8         Physical and Economic Constraints       8         Montague Expressway       9         Land Use       9         Biology       9         Cultural       9         Physical and Economic Constraints       9         Summary       9         Biological Resources       10		
Physical and Economic Constraints		
Montague Expressway 9 Land Use 9 Biology 9 Cultural 9 Physical and Economic Constraints 9 Summary 9 Biological Resources 10		
Land Use		
Biology		
Cultural 9 Physical and Economic Constraints 9 Summary 9 Biological Resources 10		
Physical and Economic Constraints	0,	
Summary		
Biological Resources10		
	Biological Resources	.10
Cultural Resources		
Building Displacement or Disruption		
Visual Change		

Construction Impacts	1	1
Conclusions	1	1
Literature Cited		

# Environmental Screening Report for the Interstate 680/Interstate 880 Cross Connector

#### Introduction

Freeways and connecting roads in southern Alameda and northern Santa Clara Counties are debilitated by traffic congestion. The Interstate 680 (I-680)/Interstate 880 (I-880) Cross Connector project addresses traffic congestion and safety issues in this area, from Auto Mall Parkway on the north, I-680 on the east, Montague Expressway on the south, and San Francisco Bay on the west. Improvements in the project area were suggested during a brainstorming session conducted by the I-680/I-880 Cross Connector Technical Advisory Committee (TAC). The TAC recommended a broad range of transportation improvements to alleviate traffic congestion and increase safety in the project area.

Following the brainstorming session, the transportation solutions recommended by the TAC were grouped by category and geographic location. This environmental screening report addresses six geographic corridors identified within the project area. Most of the transportation solutions suggested by the TAC fall within the geographic limits of these corridors, which are listed below.

- Auto Mall Parkway
- Fremont Boulevard/Grimmer Boulevard
- Mission Boulevard
- Scott Creek Road/Dixon Landing Road
- Calaveras Boulevard/Route 237
- Montague Expressway

The purpose of this document is to assess the environmental and social constraints related to the addition of a highway connector between I-680 and I-880 within the Cities of Fremont and Milpitas. The addition of the connector would ultimately increase road-use efficiency and relieve traffic congestion. The project boundary is defined by I-680, Montague Expressway, I-880, and Auto Mall Parkway. Each of the six potential locations was assessed for biological and cultural resources, and physical and economic constraints.

Biological resources were assessed by a Jones & Stokes wildlife biologist who visited the six geographic corridors and reviewed aerial photos and the California Natural Diversity Database (2003). Biological "red flags," or points of concern, were identified through this process and are listed below. Jones & Stokes archaeologists and architectural historians have reviewed the preliminary data regarding the various alternatives for the I-680/I-880 cross connector. The data presented in this document are the result of an abbreviated records search and an examination of the geographic location of the project area. Aerial photographs, site visits, and land use maps were used to assess physical and economic constraints by identifying areas that would be displaced at each of the connector locations. The findings of this document should be considered preliminary and used as guidance for further investigation.

The following sections describe the general land use patterns in each of the corridors, traveling west to east, and identify the types of biological, cultural, physical, and economic constraints that exist. Construction-related impacts are also discussed. The screening process assumes that widening all or portions of existing rights-of-way within these corridors would be necessary to implement transportation improvements.

# **Auto Mall Parkway**

#### Land Uses

The western end of the Auto Mall Parkway corridor (west of I-880) consists of commercial and office uses on the north side of Auto Mall Parkway, and open space in the form of vacant lots on the south side. Moving east, medium- and high-density residential uses line the north side of Auto Mall Parkway from I-880 to approximately the Union Pacific Railroad (UPRR) tracks. These residential uses include the Southlake Mobile Home Park and an apartment complex surrounded by a cement-block wall. Commercial uses, including a large Fry's Electronics complex, represent the remainder of uses from the UPRR tracks to I-680 on the north side of Auto Mall Parkway. The south side of Auto Mall Parkway from I-880 to I-680 consists predominantly of commercial and light industrial uses, including several large warehouse buildings, gas stations, and retail complexes.

## Biology

Widening Auto Mall Parkway to six lanes between I-880 and I-680 could have an impact on sensitive biological resources. The Auto Mall Parkway corridor crosses two small, unnamed tributaries of Coyote Creek that should be surveyed for general condition of the riparian corridor, and, if applicable, habitat suitability and presence of California red-legged frog (Rana aurora draytonii); salt marsh common yellowthroat (Geothlypis trichas sinuosa); tricolored blackbird (Agelaius tricolor); western pond turtle (Clemmys marmorata); migratory birds

and Congdon's spikeweed (*Centromadia parryi ssp. congdonii*), a special-status plant. Congdon's spikeweed is known from the area west of Warm Springs Parkway and south of Auto Mall Parkway (California Natural Diversity Database 2003).

Empty lots in this connector route, specifically the areas surrounding the I-680 interchange, should be surveyed for western burrowing owl (*Athene cunicularia hypugaea*). There are three records of this species occurring just south of Auto Mall Parkway (California Natural Diversity Database 2003).

California tiger salamanders (Ambystoma californiense) are unlikely to occur in this area because it is developed. However, upland areas adjacent to Rancho Agua Caliente, south of Auto Mall Parkway, should be surveyed for ground squirrel burrows that could be used by California tiger salamander (provided the creek offers suitable habitat for California tiger salamander). There is a current record of California tiger salamander just north of Auto Mall Parkway adjacent to the UPRR tracks (California Natural Diversity Database 2003). This species is also known from the hills to the east and in nearby salt pond areas toward the bay. If suitable habitat is present, it is possible that the unnamed tributaries may provide a dispersal corridor for this species.

#### Cultural

This route passes through the UPRR route. Because the railroad is more than 50 years old, it would have to be evaluated for significance and potential effects at intersecting points.

# Physical and Economic Constraints

There are several physical and economic constraints to consider along this route. The Hayward fault passes under the I-680/Auto Mall Parkway intersection. A major earthquake with a maximum magnitude of 7.5 may occur along the Hayward fault. The construction of this connector would likely disrupt residences north of Auto Mall Parkway and industrial/commercial structures south of Auto Mall Parkway. Electrical transmission towers and wiring are located near the I-680/Auto Mall Parkway intersection, adjacent to Fry's Electronics. Electrical towers and wiring are also present along the entire stretch of Auto Mall Parkway from I-880 to I-680. Construction along this route would displace and/or disrupt these utilities. This corridor also passes over the historic UPRR route. The UPRR route was determined not eligible for California Register of Historical Resources eligibility when evaluated for the San Francisco Bay Area Rapid Transit District (BART) Warm Springs Extension project; evaluation for National Register of Historic Resources eligibility would be required for this project because no such evaluation was conducted as part of the BART project (Jones & Stokes 2003). Construction along this corridor would likely require the avoidance of a portion of the UPRR route.

## Fremont Boulevard/Grimmer Boulevard

#### Land Uses

From the I-880/Fremont Boulevard intersection traveling north, heavy commercial and industrial uses dominate both sides of Fremont Boulevard. The New United Motors Assembly Plant covers most of the eastern side of Fremont Boulevard, while smaller commercial uses cover the western side. Continuing east toward I-680 from the intersection of Fremont Boulevard and Grimmer Boulevard, areas of open space in the form of vacant lots line much of the south side of Grimmer Boulevard. A warehouse and equipment lot are located at the southwest corner of Grimmer Boulevard and Old Warm Springs Road. Additionally, a cluster of single-family residences is located on the south side of Grimmer Boulevard, between Old Warm Springs Road and the UPRR tracks. Commercial, office, and light industrial uses dominate the north side of Grimmer Boulevard from Fremont Boulevard to I-680. A single-family residential neighborhood abuts the freeway corridor on the eastern side of the I-680/Grimmer Boulevard intersection. Currently, there are no on/off ramps to I-680 from Grimmer Boulevard. There are sidewalks along Fremont and Grimmer Boulevards. BART is planning a potential station in the vicinity of Grimmer Boulevard and Osgood Road (Jones & Stokes 2003).

# Biology

The Fremont Boulevard/Grimmer Boulevard intersection and corridor contains limited habitat for sensitive biological resources. This corridor does not cross any streams or drainages. Empty or vacant lots should be surveyed for burrowing owl.

#### Cultural

This route passes through the UPRR route. Because the railroad is more than 50 years old, it would have to be evaluated for significance and potential effects at intersecting points.

## Physical and Economic Constraints

The construction of this connector may disrupt and displace businesses and residences. In addition, utility lines would likely be disrupted. The UPRR tracks may also be an obstacle because the connector would require avoidance or displacement of a portion of the UPRR route. This corridor would also require the construction of on- and off-ramps at I-680.

#### Mission Boulevard

#### Land Uses

Land uses on the north side of Mission Boulevard, from I-880 to I-680, consist primarily of commercial and office uses. The south side of Mission Boulevard contains a mix of residential and commercial uses. The stretch of Mission Boulevard between approximately Warm Springs Boulevard and I-680 is more densely developed than the stretch between Warm Springs Boulevard and I-880.

# Biology

This corridor crosses both Agua Caliente and Agua Fria Creeks. The riparian corridor should be surveyed for general condition, and the presence of habitat for California red-legged frog and migratory birds.

A search of the CNDDB found that there are burrowing owl and California tiger salamander in the region. All known California red-legged frog occurrences are located east of I-680, but are within the same watershed as these known occurrences (California Natural Diversity Database 2003). California tiger salamanders are found upstream in the foothills and downstream in the salt ponds. Surveys should be conducted to evaluate the suitability of creeks in this area for migratory/dispersal corridors for both California red-legged frog and California tiger salamander. This route also bisects open lots at the northwest end of Mission Boulevard. These areas should be surveyed for burrowing owl. Burrowing owl surveys should also be conducted around the Mission Boulevard interchange area at I-680.

#### Cultural

This route passes through the UPRR route. Because the railroad is more than 50 years old, it would have to be evaluated for significance and potential effects at intersecting points.

# Physical and Economic Constraints

The construction of this connector may displace businesses and residential housing. In addition, underground utility lines would likely be disrupted. The UPRR may also be an obstacle because it would require either avoidance or displacement.

# Scott Creek Road/Dixon Landing Road

#### Land Uses

The western end of the Scott Creek Road corridor, to the west of I-880, is undeveloped marshland. The Newby Island Landfill borders the edge of this end of the corridor to the west. Currently, there is no on- or off-ramp onto I-880 from Kato Road. After crossing over I-880, moving east, both sides of Kato Road consist of office and scattered commercial uses until Warm Springs Boulevard. At Warm Springs Boulevard, Kato Road becomes Scott Creek Road, and residential uses dominate the remainder of the stretch to I-680.

# Biology

Construction of the Scott Creek Road/Dixon Landing Road corridor would impact sensitive biological resources. Widening of Millmont Drive would cross Scott Creek, which is a tributary of Coyote Creek. Coyote Creek contains suitable habitat for special-status fish and California red-legged frog. The west end of Dixon Landing Road is at the confluence of Lower Penitencia and Coyote Creeks. The riparian area should be surveyed for general health, and, if applicable, habitats for California red-legged frog, migratory birds, and salt marsh common yellowthroat. The east end of Dixon Landing Road is adjacent to a large wetland feature, and the jurisdictional boundaries and wildlife/plant value of this area should be examined.

The area where Kato Road would extend to future Fremont Boulevard is undeveloped except for Pacific Gas & Electric Company transmission lines (new and old). This area is tidally influenced and adjacent to the Don Edwards San Francisco Bay National Wildlife Refuge. The habitat in this area consists of salt marsh and brackish marsh wetlands, which support a variety of special-status species, including the endangered salt marsh harvest mouse (*Reithrodontomys raviventris*). There are several occurrences of salt marsh harvest mouse just west of I-880 where the proposed extension would connect with the future Fremont Boulevard (California Natural Diversity Database 2003). There is also one occurrence of the salt marsh common yellowthroat in this area (California Natural Diversity Database 2003).

Other special-status species known to occur or that might be affected by the extension of Kato Road include alkali milk vetch (*Astragalus tener* var. *tener*), Congdon's tarplant, northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), and California clapper rail (*Rallus longirostris obsoletus*).

Because of the limited amount of salt marsh habitat left in San Francisco Bay, many wildlife species that depend on this habitat are considered special-status. In addition, there are very few terrestrial wildlife species that can survive in salt marsh habitat because of fluctuations in water level and a lack of edible vegetation (a diet of salt marsh vegetation is not very nutritious). The salt marsh

harvest mouse is uniquely adapted to this habitat in its ability to survive on seawater. Of the five species of birds that nest in salt marsh habitat, four are listed as special-status: salt marsh common yellowthroat, California clapper rail, California black rail (*Laterallus jamaicensis coturniculus*), and Belding's savannah sparrow (*Passerculus sandwichensis beldingi*).

#### Cultural

The route crosses the Hetch Hetchy aqueduct, which would require evaluation for possible historic significance (highly likely as part of a larger system) and determination of potential effects. The route also crosses historic salt ponds. Because the salt ponds are more than 50 years old, a formal evaluation would be necessary to determine their significance as a historic resource, as well as a determination of potential effects. This route crosses Coyote Creek and may therefore detrimentally affect the creek. Because Coyote Creek represents an important source of water through prehistoric and historic periods, the area around the creek has a high potential for the presence of undiscovered archaeological resources. This route also passes through the UPRR route. Because the railroad is more than 50 years old, it would have to be evaluated for significance and potential effects at intersecting points.

# **Physical and Economic Constraints**

There are several physical and economic constraints to consider for this route. Residential structures may be impacted by construction along this corridor. Cedar Lawn Memorial Cemetery is adjacent to the route, on the northeast corner of Scott Creek Road and Warm Springs Boulevard; disruption may occur as a result of its proximity to the existing roadways. The route crosses the Hetch Hetchy aqueduct; construction around the aqueduct would require careful avoidance or possible displacement of the aqueduct. The UPRR route may also be an obstacle because the connector would require avoidance or disruption of the tracks. In addition, according to the City of Fremont General Plan, the salt ponds on the west end of the route are subject to severe shaking. Given the historic seismic activity of the region, the potential for future major seismic events to occur is high.

## Calaveras Boulevard/Route 237

#### Land Uses

From I-880, moving east along Calaveras Boulevard, commercial uses represent most of land uses up to Abel Street. Calaveras Boulevard continues into commercial and various office uses, with a mix of light industrial, manufacturing, and warehouse uses in the general vicinity of the UPRR switching yard. As

Calaveras Boulevard approaches I-680, the City of Milpitas Civic Center and commercial town center line the roadway on the north side, and various commercial and office uses line the south side. Generally, the entirety of this corridor is densely developed, with few vacant lots.

# Biology

The Calaveras Boulevard/Route 237 corridor crosses five riparian areas: Berryessa Creek, Wrigley Creek, two unnamed corridors, and Coyote Creek. Widening or changing Route 237 would require extensive surveys for fish, amphibians, birds (special-status and migratory), and plants at these sites. This route passes through "potential alkali milk vetch" habitat, as described in the City of Milpitas General Plan. Upland areas of this route are highly developed. Open lots should be surveyed for burrowing owl, especially within the interchanges at I-880 and I-680 and along the UPRR right-of-way.

#### Cultural

The route crosses the Hetch Hetchy aqueduct, which would require evaluation for possible historic significance (highly likely as part of a larger system) and determination of potential effects. This corridor also passes through the UPRR route. Because the railroad is more than 50 years old, it would have to be evaluated for significance and potential effects at intersecting points.

# Physical and Economic Constraints

Commercial structures may be displaced. The route crosses the Hetch Hetchy aqueduct; construction around the aqueduct would require careful avoidance or possible displacement of the aqueduct. The UPRR route may also be an obstacle either because the corridor would require avoidance or disruption of the tracks. Because the route crosses both the UPRR route and switching yard, the required construction of an overpass along this route may disrupt the UPRR system at this location. In addition, the civic center and town center are adjacent to the route; construction of the route might disrupt or displace these newly constructed structures.

# Montague Expressway

#### Land Use

From the I-880/Montague Expressway interchange, traveling east, office and heavy commercial/light industrial uses dominate most of the stretch to I-680. Some scattered residential uses exist on the eastern end of this corridor.

## Biology

This route crosses three riparian areas: Berryessa Creek, an unnamed intermittent drainage, and Lower Penitencia Creek. Potential suitable habitat for California red-legged frog and California tiger salamander could occur along the creek banks and in the creek bed. Potential suitable foraging and breeding burrowing owl habitat exists at Penitencia Creek crossing and the I-880 interchange. Although the land adjacent to this route appears to be landscaped along its entire length, any open areas should be surveyed for burrowing owl. In addition, the riparian corridors should be checked for general habitat values (if any), and, if appropriate, for habitat suitability for California red-legged frog, migratory birds, and other sensitive species.

#### Cultural

This route passes through the UPRR route. Because the railroad is more than 50 years old, it would have to be evaluated for significance and potential effects at intersecting points.

# Physical and Economic Constraints

A mixture of heavy commercial/light industrial, office, and possibly residential structures may be displaced with the construction of this corridor. The UPRR route may also be an obstacle because the corridor would require avoidance or disruption of the tracks.

# Summary

The potential for biological, cultural, physical, and economic effects to result from transportation improvements exists in each of the six corridors assessed in the screening process.

## **Biological Resources**

Based on the environmental screening, it appears that the Scott Creek Road/Dixon Landing Road corridor has the greatest potential to result in impacts on biological resources because the alignment includes San Francisco Bay tidal marsh and salt pond areas. Biological impacts on riparian species at creek crossings would occur in all corridors. The Calaveras Boulevard/Route 237 corridor has the greatest potential to experience riparian impacts because it crosses five creeks/drainages. Vacant and undeveloped areas in all corridors are potential habitat for burrowing owls, a state-protected species.

## **Utility Relocations**

Utility relocations would likely be required in all corridors. The Auto Mall Parkway corridor may require the relocation of high-tension electrical towers and lines.

#### **Cultural Resources**

Cultural resources may exist within all of the corridors. Areas along the former San Francisco Bay shoreline are considered archaeologically sensitive. Therefore, prehistoric archaeological resources may be present within all of the corridors. The I-680 corridor is also known to be archaeologically and paleontologically sensitive. All the corridors cross or are adjacent to the UPRR route. This rail corridor may be of historical significance. In addition, the Scott Creek Road/Dixon Landing Road and Calaveras Boulevard/Route 237 corridors cross the Hetch Hetchy aqueduct, which may also have historical significance.

# **Building Displacement or Disruption**

The potential for displacement of residential and commercial land uses exists in each of the corridors. The Fremont Boulevard/Grimmer Boulevard, Calaveras Boulevard/Route 237, and Montague Expressway corridors would have the least potential to result in impacts on residential usesbecause very little residential development exists along these roadways. The Scott Creek Road/Dixon Landing Road corridor has the greatest potential to result in impacts on residential uses because approximately half of the corridor is lined with residences. The Grimmer Boulevard/Fremont Boulevard corridor has the potential to experience the greatest loss of commercial uses because of project design.

Community facilities that may be directly affected include the Cedar Lawn Memorial Cemetery in the Scott Creek Road/Dixon Landing Road corridor and the City of Milpitas Civic Center in the Calaveras Boulevard/Route 237 corridor. However, it is likely that each of these facilities could be avoided.

# Visual Change

The corridors that would experience the greatest visual change as a result of project implementation would be the Grimmer Boulevard/Fremont Boulevard and Scott Creek Road corridors because development proposed under both of these alternatives includes new aerial roadway features where none currently exists. The current visual environment along the other four corridors would be less impacted because of the presence of existing thoroughfares and the absence of aerial roadway elements proposed under these four alternatives.

## Construction Impacts

Construction-related impacts would likely occur in all six of the proposed corridors. The extent of these impacts is expected to be similar in all corridors. Examples of these impacts include noise disturbances, dust, utility service disruption, and water quality impacts to nearby creeks and tributaries. The Fremont Boulevard/Grimmer Boulevard corridor would have the fewest impacts on water quality because no riparian areas exist in this corridor. The Scott Creek Road/Dixon Landing Road corridor would have the greatest construction impacts on wildlife habitat.

#### Conclusions

From an environmental standpoint, the Auto Mall Parkway corridor would experience the least impacts as a result of project implementation. Because the Auto Mall Parkway corridor is currently highly developed, minimal biological impacts would occur along this corridor. Additionally, this corridor has a large center median on most of the alignment that would serve as the primary location for proposed street widening and grading, avoiding impacts on most of the existing structures that line the roadway. The Scott Creek Road/Dixon Landing Road corridor would likely experience the most environmental impacts. This corridor contains a large area of San Francisco Bay tidal marsh and salt ponds. Additionally, residential uses represent much of the land uses along the corridor, and the Cedar Lawn Memorial Cemetery lies directly adjacent to the corridor.

## Literature Cited

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